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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/587,245

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Seong-Soo Park

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LOWE HAUPTMAN HAM & BERNER, LLP

1700 DIAGONAL ROAD

SUITE 300

ALEXANDRIA, VA 22314

EXAMINER

SARWAR, BABAR

ART UNIT

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/587,245	Applicant(s) PARK ET AL.	
	Examiner BABAR SARWAR	Art Unit 2617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 03 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-19 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-19 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 26 July 2006 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Specification

1. The word "Ban" in the title of the invention is misspelled.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 (e) that forms the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Moon et al. (US Patent: 6,804,532 B1), hereinafter referenced as Moon.

Consider **claim 1**, Moon discloses a mode switching method for a multi-mode multi-band mobile communication terminal (**Figs. 1, and 3 element 20**) in a multi-access communication network (**Fig. 2**), the multi-mode multi-band mobile communication terminal having modems for communication with a plurality of communication networks having different coverages (**Abstract, Fig. 2**). Moon further discloses that the first step of calculating link quality of a Wireless Local Area Network (WLAN) in which the mobile communication terminal is currently located; the second step of Comparing the link quality calculated at the first step with a first reference value preset in connection with the WLAN (**Col. 13 lines 14-37, Figs. 2, 5, where Moon**

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discloses monitoring the link quality, signal strength and threshold i.e. reference value); the third step of measuring a signal from a portable Internet having coverage wider than that of the current communication network if, as a result of the comparison at the second step, it is determined that the link quality of the WLAN is lower than the first reference value; the fourth step of calculating link quality of the portable Internet; and the fifth step of switching a mode of the mobile communication terminal to perform handoff to the Portable Internet if it is determined that the link quality of the portable Internet calculated at the fourth step is higher than a second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5, where Moon discloses plurality of communication networks and choosing communication modes based on link quality and signal strength i.e. Handover).**

Consider **claim 2**, Moon discloses everything claimed as implemented above (see claim 1). In addition, Moon discloses the steps of determining whether the link quality of the WLAN is higher than the second reference value if the signal from the portable Internet has not been measured at the third step; and maintaining communication with the WLAN if, as a result of the determination, the link quality of the WLAN is higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5, where Moon discloses plurality of communication networks and choosing communication modes based on link quality and signal strength).**

Consider **claim 3**, Moon discloses everything claimed as implemented above (see claim 2). In addition, Moon discloses the step of switching the mode of the mobile

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communication terminal to perform handoff to the mobile communication terminal if the link quality of the WLAN is not higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5, where Moon discloses plurality of communication networks and choosing communication modes based on link quality and signal strength i.e. Handoff**).

Consider **claim 4**, Moon discloses everything claimed as implemented above (see claim 1). In addition, Moon discloses the steps of determining whether the link quality of the WLAN is higher than the second reference value if the link quality of the portable Internet calculated at the fourth step is not higher than the second reference value; maintaining communication with the WLAN if, as a result of the determination, the link quality of the WLAN is higher than the second reference value; and switching the mode of the mobile communication terminal to perform handoff to the mobile communication network if the link quality of the WLAN is not higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5, where Moon discloses plurality of communication networks and choosing communication modes based on link quality and signal strength i.e. Handoff**).

Consider **claim 5**, Moon discloses everything claimed as implemented above (see claim 1). In addition, Moon discloses that the link quality is a data transmission rate of a corresponding communication network based on a Packet Error Rate (PER) (**Col. 13 lines 29-33, where Moon discloses bit error rate or any other suitable measure of link quality**).

Consider **claim 6**, Moon discloses everything claimed as implemented above (see claim 1). In addition, Moon discloses that the reference value is a minimal effective transmission rate of a current communication network (**Col. 13 lines 14-57, where Moon discloses bit error rate or any other suitable measure of link quality**).

Claim 7, as analyzed with respect to the limitations as discussed in claim 1.

Consider **claim 8**, Moon discloses everything claimed as implemented above (see claim 7). In addition, Moon discloses that the steps of: measuring a signal from a portable Internet if the signal from the WLAN has not been measured at the first step; calculating link quality of the measured signal; determining whether the link quality of the WLAN is higher than a second reference value preset for a corresponding communication network if the link quality of the signal is not higher than the second reference value and not lower than the first reference value; and switching the mode of the mobile communication terminal to perform handoff to a mobile communication network if the link quality of the WLAN is not higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5, where Moon discloses plurality of communication networks and choosing communication modes based on link quality and signal strength i.e. Handoff**).

Consider **claim 9**, Moon discloses everything claimed as implemented above (see claim 8). In addition, Moon discloses that the step of switching the mode of the mobile communication terminal to perform handoff to the WLAN if the link quality of the WLAN is higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Consider **claim 10**, Moon discloses everything claimed as implemented above (see claim 7). In addition, Moon discloses that the steps of: measuring a signal from a portable Internet if, as a result of the comparison at the third step, the link quality of the WLAN is not higher than the first reference value; calculating link quality of the measured signal; determining whether the link quality of the WLAN is higher than a second reference value preset for a corresponding communication network if the link quality of the signal is not higher than the second reference value and not lower than the first reference value; and switching the mode of the mobile communication terminal to perform handoff to a mobile communication terminal if the link quality of the WLAN is lower than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Consider **claim 11**, Moon discloses everything claimed as implemented above (see claim 7). In addition, Moon discloses that the step of switching the mode of the mobile communication terminal to perform handoff to the WLAN if the link quality of the WLAN is higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Claim 12, as analyzed with respect to the limitations as discussed in claim 5.

Claim 13, as analyzed with respect to the limitations as discussed in claim 6.

Claim 14, as analyzed with respect to the limitations as discussed in claim 1.

Consider **claim 15**, Moon discloses everything claimed as implemented above (see claim 14). In addition, Moon discloses that the step of switching the mode of the mobile communication terminal to perform handoff to the WLAN if, as a result of the

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comparison at the third step, the link quality of the WLAN is higher than the first reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Consider **claim 16**, Moon discloses everything claimed as implemented above (see claim 14). In addition, Moon discloses that the steps of: determining whether the link quality of the WLAN is higher than the second reference value if the signal from the portable Internet has not been measured at the forth step; switching a mode of the mobile communication terminal to perform handoff to the WLAN if the link quality of the WLAN is higher than the second reference value; and maintaining communication with the mobile communication network if the link quality of the WLAN is not higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Consider **claim 17**, Moon discloses everything claimed as implemented above (see claim 14). In addition, Moon discloses that the steps of: determining whether the link quality of the WLAN is higher than the second reference value if the link quality of the portable Interact calculated at the fifth step is not higher than the second reference value; switching a mode of the mobile communication terminal to perform handoff to the WLAN if the link quality of the WLAN is higher than the second reference value; and maintaining communication with the mobile communication network if the link quality of the WLAN is not higher than the second reference value (**Col. 13 lines 14-67, Col. 14 lines 1-67, Col. 15 lines 1-10, Figs. 2, 4, 5**).

Claim 18, as analyzed with respect to the limitations as discussed in claim 5.

Claim 19, as analyzed with respect to the limitations as discussed in claim 6.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to BABAR SARWAR whose telephone number is (571)270-5584. The examiner can normally be reached on MONDAY TO FRIDAY 09:00 A.M -05:00 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, NICK CORSARO can be reached on (571)272-7876. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/BS/

/NICK CORSARO/

Supervisory Patent Examiner, Art Unit 2617

/BABAR SARWAR/
Examiner, Art Unit 2617

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